birds, though they generally procure insects from the flowers, often take them on the wing, like any other fissirostral bird.

What birds can have their bills more peculiarly formed than the ibis, the spoonbill, and the heron? Yet they may be seen side by side, picking up the same food from the shallow water on the beach; and on opening their stomachs, we find the same little crustacea and shell-fish in them all. Then among the fruit-eating birds, there are pigeons, parrots, toucans and chatterers,—families as distinct and widely separated as possible,—which yet may be often seen feeding all together on the same tree; for in the forests of South America, certain fruits are favourites with almost every kind of fruit-eating bird. It has been assumed by some writers on natural history, that every wild fruit is the food of some bird or animal, and that the varied forms and structure of their mouths may be necessitated by the peculiar character of the fruits they are to feed on; but there is more of imagination than fact in this statement: the number of wild fruits furnishing food for birds is very limited, and birds of the most varied structure and of every size will be found visiting the same tree.—*Wallace's Travels on the Amazon and Rio Negro.*

On a species of African Ant. By Dr. L. Imhoff.

In describing a species of Ant brought from Acropong on the Gold coast by M. Widmann, a Missionary, Dr. Imhoff gives the following account of one of its habits. The ant belongs to the genus *Anomma*, Shuck.

"Amongst the various ants which occur at the Missionary station at Acropong, there is one in particular of which both M. Widmann and his wife have a very vivid recollection. One New Year's night, during their many years' residence in that place, an army of ants, several inches broad, entered their bedroom; the ants scattered themselves in every direction, and spread over all the furniture and other objects in the room; whatever fell in their way was immediately laid hold of; the bed-cover was soon covered with them, until he and his wife could no longer endure the bites of the creatures and were compelled to leave the house. The ants continued to stream through the dwelling in an uninterrupted line for half an hour. This visit was quite unexpected by the inhabitants of the house; they had indeed seen ants in the house before, but only one at a time."

"This statement agrees remarkably with that made by Reugger in his 'Reise nach Paraguay.' The *tajy-ne* of Paraguay, an ant, apparently belonging to the genus *Odontomachus*, is, says he, a species which builds its nest in the earth, and only appears occasionally in houses, but then comes in crowds and quite unexpectedly, breaking through a crack in the wall or between the tiles of the floor. He describes it also as being exceedingly voracious and fond of biting. These ants attack every kind of animal, not excepting man. Crickets, spiders, mantides, which are also to be met with in the rooms, are immediately torn to pieces by them."

Dr. Imhoff originally proposed the name of *Sphegomyrmex* for

this insect, believing it to form the type of a genus previously unknown; he afterwards, however, recognised it as belonging to the genus *Anomma*, Shuck., described in 1840. He seems to think, however, that the latter name comes so near that of *Anommatus*, which was appropriated in 1836 by Wesmael for a genus of Coleoptera, that it ought to be suppressed, in which case his name would be substituted for that given by Shuckard to this genus.—*Bericht über die Verh. der Naturf. Gesellsch. zu Basel*, x. 1852, p. 175.

On a new Muscle-element in the Thoracic Muscles of Insects.
By Dr. Burnett.

Aubert* states that he has found an entirely new form of muscle-element in the *Libellulidæ*; this consists of flat, primitive, muscular bands occurring only in the thorax, and which by means of a pitcher-shaped (*becherförmigen*) apparatus move the wings.

The following are his conclusions on this subject:—

"1. The comparatively very large muscles of those insects which fly with a buzzing sound, separate, when fresh, into fine, transversely striated fibres.

"2. The fibres are the primitive muscular fibrillæ.

"3. Between the fibrillæ there is a granular mass, the use of which is unknown.

"4. All other muscles when fresh present no appearances of this kind.

"5. The *Libellulidæ* have in the thorax primitive muscular bands.

"6. The elements of the muscles are little cakes or cylinders which are applied together, forming the fibrillæ.

"7. During contraction the fibrillæ thicken, and the striæ are approximated."

These results have been confirmed by my own experience, for the thoracic muscles of insects have long been to me beautiful objects for the study of the histological elements of muscular tissues. It is a form of this tissue particularly to be recommended for the study of the intimate sarcous elements. The fibrillæ readily separate into the discs of which they are composed, and the whole field is then filled with these last floating freely about. But it is a question if these primitive fibrillæ, which are here so distinct, are not the products of definite cleavages of primitive muscular fibres. In studying them carefully with a power of 800 to 1000, we have been able to detect no remains of their early formative conditions. Furthermore, we know that the muscular fibre is the primitive embryological element of this tissue. It therefore appears to us probable that this peculiarity of the thoracic muscles of insects is due simply to readiness for cleavage, and which may be subservient to their rapid and delicate action.

Another point which we have noticed, and which Aubert also has alluded to, is the singular spiral aspect which these fibrillæ sometimes assume from an apparently irregular movement in their con-

* "Ueber die eigenthümliche Structur der Thoraxmuskeln der Insekten," in Siebold and Kölliker's Zeitsch. für Zool. iv. 1853, p. 388, taf. 15.